AMENDMENTS TO THE CLAIMS:

Please amend the claims as follows:

1. (Previously Presented) A method for sintering a porous-glass material, having a core inside the porous-glass material, in a furnace to form a glass base material, which is a base material for an optical fiber, comprising:

preparing a ring heater having an opening, through which said porous-glass material passes, for heating said porous-glass material;

preparing said porous-glass material having an outer diameter (d) within a range, said range being based on an inner diameter (D) of said opening of said ring heater;

putting said porous-glass material, formed by performing said preparing said porous-glass material, in the furnace; and

heating said porous-glass material in an atmosphere of dehydration gas and inert gas with said ring heater,

wherein said range of said outer diameter(d) of said porous-glass material is within a range of $0.5xD < d < 0.9xD$.

2. (Canceled)

3. (Previously Presented) A method as claimed in claim 1, wherein said range of said outer diameter (d) of said porous-glass material is within a range of $0.6xD \leq d \leq 0.8xD$.

4. (Previously Presented) A method as claimed in claim 1, wherein said range of said outer diameter (d) of said porous-glass material is based on a vertical length (L) of said ring heater.

5. (Previously Presented) A method as claimed in claim 4, wherein said range of said outer diameter (d) of said porous-glass material is within a range of $0.5xL \leq d \leq 0.9xL$.

6. (Currently Amended) A method as claimed in claim 1, wherein ~~said range of said outer diameter (d) of said porous-glass material is selected so that~~ an eccentricity error of a core inside a glass base material manufactured by sintering said porous-glass material ~~becomes~~ is substantially 0.4 % or less.

7. (Previously Presented) A method as claimed in claim 1, wherein said heating heats said porous-glass material in said furnace that is provided inside said opening of said ring heater so that a part of said furnace is surrounded by said ring heater.

8. (Previously Presented) A method for manufacturing a preform, which is a base material of an optical fiber, in a furnace, comprising:

preparing a ring heater having an opening, through which a porous-glass material, having a core inside said porous-glass material, which is a base material of said preform, passes, for heating said porous-glass material;

forming said porous-glass material having an outer diameter (d) within a range, said range being based on an inner diameter (D) of said opening of said ring heater;

putting said porous-glass material, formed by performing said forming said porous-glass material, in the furnace;

sintering said porous-glass material in an atmosphere of dehydration gas and inert gas with said ring heater; and

elongating said sintered porous-glass material to form said preform,

wherein said range of said outer diameter (d) of said porous-glass material is within a range of $0.5xD < d < 0.9xD$.

9. (Canceled)

10. (Previously Presented) A method as claimed in claim 8, wherein said range of said outer diameter (d) of said porous-glass material is within a range of $0.6xD \leq d \leq 0.8xD$.

11. (Previously Presented) A method as claimed in claim 8, wherein said range of said outer diameter (d) of said porous-glass material is based on a vertical length (L) of said ring heater.

12. (Previously Presented) A method as claimed in claim 11, wherein said range of said outer diameter (d) of said porous-glass material is within a range of $0.5xL \leq d \leq 0.9xL$.

13. (Currently Amended) A method as claimed in claim 8, wherein ~~said range of said outer diameter (d) of said porous-glass material is selected so that~~ an eccentricity error of a core inside said sintered porous-glass material is substantially 0.4 % or less.

14. (Original) A method as claimed in claim 8, wherein said heating heats said porous-glass material in a furnace that is provided inside said opening of said ring heater so that a part of said furnace is surrounded by said ring heater.

15. (Previously Presented) A method for manufacturing an optical fiber in a furnace, comprising:

preparing a ring heater having an opening, through which a porous-glass material, having a core inside said porous-glass material, which is a base material of said optical fiber, passes, for heating said porous-glass material;

forming said porous -glass material having an outer diameter (d) within a range, said range being based on an inner diameter (D) of said opening of said ring heater;

putting said porous-glass material, formed by performing said forming said porous-glass material, in the furnace;

sintering said porous-glass material in an atmosphere of dehydration gas and inert gas with said ring heater; and

elongating said sintered porous-glass material to form a preform; and

drawing said preform to form said optical fiber,

wherein said range of said outer diameter (d) of said porous-glass material material is within a range of $0.5xD < d < 0.9xD$.

16. (Canceled)

17. (Previously Presented) A method as claimed in claim15, wherein said range of said outer diameter (d) of said porous-glass material comprises substantially $0.6xD \leq d \leq 0.8xD$

18-20. (Canceled)

21. (Previously Presented) A method as claimed in claim 1, wherein said dehydration gas comprises chlorine.

22. (Previously Presented) A method as claimed in claim 1, wherein said inert gas comprises helium.

23. (Previously Presented) A method as claimed in claim 1, wherein said dehydration gas comprises chlorine and said inert gas comprises helium.

24. (Previously Presented) A method as claimed in claim 1, further comprising:

descending said porous-glass material to a bottom of said furnace.

25. (Previously Presented) A method as claimed in claim 1, further comprising:

rotating said porous-glass material in said furnace.